

Federal Highway
Administration

August 19, 2003

Refer to: HOTO-1

Mr. Tom Dolaskie
Alger County Road Commission
E9264 M-28
Munising, MI 49862

Dear Mr. Dolaskie:

Thank you for your January 29 letter to Mr. Ernie Huckaby of the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD) team regarding signage for snowmobile trails on highway rights-of-way. We apologize for the delayed response due to the inadvertent misrouting of your incoming correspondence.

The MUTCD is adopted by reference in accordance with Title 23, United States Code,

Section 109(d) and Title 23, Code of Federal Regulations, Part 655.603, and is approved as the national standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel. This provision includes snowmobile trails. The FHWA is responsible for developing the standards contained in the Manual with input from traffic and safety experts and the general traveling public.

You asked if the FHWA is currently considering a standard symbol or color to identify snowmobile signs on trails within the public rights-of-way. Please be advised that the MUTCD has included a standard symbol for snowmobiles since the early 1970's. The Snowmobile Crossing warning sign (W11-6) and a standard snowmobile symbol were included in the 1979 Standard Highway Signs Book. Your suggestion for a special color for snowmobile signs will be considered as a request to change the MUTCD. For identification purposes, we are assigning the following official ruling number to your request for change: "2-512(C)-Special Color for Snowmobile Trail Signs."

In addition, you expressed concern that signing on an approved groomed trail adjacent to a conventional highway may conflict with signing on the highway for drivers. The MUTCD restricts the size of signs for trails, such as those depicted in Part 9 for Bicycles to a size which renders them unreadable (unusable and hence not functional) to highway users. Typical sizes for bicycle signs are 18" x 18" and the largest are 24" x 24" with height of legend of 2" or less. The experience by State and local highway agencies to date with this approach has been a positive one and we are not aware of any safety problems.

Per your request, we have reviewed the copy of the Michigan Department of Natural Resources Snowmobile Trail Signing Handbook. In general, the sign designs are consistent with the FHWA's MUTCD and the sizes are equal to or less than the size restrictions noted above. In particular, the 18" x 18" stop sign for a snowmobile trail is consistent with the 18" x 18" size for stop signs on bicycle and shared-use trails specified in the MUTCD.



We noted several exceptions; they are as follows:

- 1 The diamond shape for the snowmobile railroad crossing warning sign should be circular to correspond to the MUTCD Railroad Crossing warning sign (W10-1).
2. Some diamond shape warning signs are illustrated with the text in outline form. The legend should be solid and conform in terms of the letter style and shape to the Standard Alphabets for Highway Signs as set forth in the Standard Highway Signs Book. You can view the Standard Highway Signs Book by visiting the MUTCD website at: <http://mutcd.fhwa.dot.gov>.

We are unable to identify any published research related to snowmobiles upon which to base a decision to assign a special color for snowmobile trail signs. The standard colors associated with regulation, warning, and guide signs as illustrated in the Michigan DNR Snowmobile Trail Signing Handbook match the standard colors assigned to the same functional class of signs in the MUTCD. These standard colors for signs in the MUTCD are readily understood by drivers and by snowmobile users with driving experience. For a change such as this to be considered, research is needed to demonstrate the safety effectiveness for a specific color. If you have such research, please forward it to us at FHWA. Until research is available, your request for change is denied. We would review your request again when research is available.

We suggest that you consider an alternative to a special color for snowmobile trail signs. A 12" x 9" black on white plaque with the standard snowmobile symbol mounted above the signs on the snowmobile trail would clearly identify the sign as being a regulatory condition.

If we can be of further assistance, please contact Mr. Fred Ranck, Safety Engineer, Safety National Technical Services Team, Resource Center, Olympia Fields, Illinois, at 708 283-3545

Sincerely yours,

Vincent P. Pearce
Acting Director, Office of Transportation Operations

cc: Mr. Jim Baron, ATSSA

1-29-03

Mr. Huckaby,

My name is Tom Dolaskie. I manage the sign department of the Alger County Road Commission located in Michigan's upper peninsula. We spoke briefly in mid December when I called you to discuss issues we are having concerning signage on snowmobile trails that are located within our right-of-way. At that time you asked me to send you any pertinent information that could, which is the purpose of this letter.

The snowmobile issue is the proverbial redheaded stepchild the road commission never wanted. The Alger County Board of Commissioners passed a resolution in 1973 allowing snowmobiles to operate on the right-of-way of our county roads. Since that time, snowmobiling has grown into a \$17 million a year industry in Alger County. It has a very favorable economic impact in our area, as our county is rural and sparsely populated.

Conversely, it has a very negative impact on our road commission. Since our mandate is basically to provide safe public roads, we have nothing to gain and much to lose relative to the snowmobile industry. For instance, snowmobiles operating on our roads create certain conditions that hamper our snow removal operations. We have, at our own expense maintained parking areas for snowmobilers for years. There is a considerable amount of signing we do in response to snowmobile-generated problems. During our last few road commission meetings, a large amount of time was devoted to dealing with snowmobile issues. The list goes on & on.

Having said that, it's the road commissions' opinion that because of the positive economic impact that snowmobiling has in our area, the road commission should cooperate as fully as possible with the snowmobile industry while limiting our commitment of resources to near zero.

One of our issues with snowmobiles is trail signs on our county road right-of-way that provide conflicting information to motorists on the road. The most obvious solution would seem to be not allowing snowmobiles on our right-of-way. While this maybe politically possible, it would deal a crippling blow to the snowmobile industry. Thus, we have agreed to work co-operatively with the snowmobile clubs and the Michigan Dept. of Natural Resources (who have responsibility for trail signage) to seek long-term resolution to the issues we share.

The DNR pays the various snowmobile clubs for grooming the trails in their area. One of the DNRs' conditions for accepting a trail onto their system is that it be signed according to their specifications. (I've attached the DNTR snowmobile trail-signing handbook.) The main problem arises when a groomed trail must be located on our county road right-of-way. The clubs that groom the trails are required by the DNR to erect snowmobile signs that sometimes provide conflicting information to motorists on the public roadway. Stop, stop ahead and various warning signs are the most frequent examples. A snowmobile warning sign may show a right curve when in fact the county road continues straight.

I assume the issues I've described here exist in other states as well and a federal standard could be an elegant and permanent solution. The solution could be a standardized symbol or color defining signage specific to snowmobiles. There is precedent for using a symbol in the *Michigan Manual of Uniform Traffic Control Devices*. (An excerpt from our manual is attached.) What I'm asking of you is; is this issue currently under consideration at the Federal level? If not, could you assist in presenting it to, or referring me to the proper people to present it to? Any assistance or advice you could offer would be greatly appreciated.

Nobody wants a snowmobile trail in their back yard. Snowmobiles are noisy, smelly, destructive machines. The recreational aspect of the industry lends itself to a fair amount of alcohol use and there are a -percentage of snowmobilers who exhibit boisterous behavior. The road commission doesn't like having them on our roads due to safety and financial *considerations*. The DNR is charged with overseeing the recreational aspect of Michigan state land, which makes the snowmobile industry pretty much their baby. The majority of trails in the U.P. are on state or federal land. One of our collective long-term goals will be to restrict *or prohibit* snowmobile traffic on public *roads* where adjacent snowmobile trails are available. There is a considerable amount of finding associated with the industry and the permanent acquisition of trail right-of-way is one way to accomplish this. I've been assigned by the road commission to work with the other entities involved in reducing our motorists' exposure to conflicting signs to the greatest extent possible. Co-operation, common sense, and when necessary, compromise are the tools at our disposal at present. A nationally standardized, easily recognizable snowmobile sign would solve a lot of problems.

Thanks again for your assistance.



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INTRODUCTION

Under the general authority of Part 5, section 503, Act 451, 1994, as amended, the Department of Natural Resources is charged with the duty to "provide and develop facilities for outdoor recreation." Part 821, Act 451, P.A. 1994, as amended, charges the Department of Natural Resources with the responsibility to provide a recreational facility for snowmobile use. As part of that charge, the department is responsible for insuring that this trail system is adequately and correctly signed. The purpose of posting trail signs is to control and regulate the flow of snowmobile traffic, inform trail users of specific trail characteristics, and provide information necessary for a safe and enjoyable trail riding experience. The purpose of this signing handbook is to be a tool to aid sponsor organizations and department employees with trail signing responsibilities, in proper signing of the trails. Proper trail signing is critical for the safety and convenience of the snowmobiling public. In addition, this is critical for the protection of the individual sponsor organizations.

While it is important to insure that snowmobile trail signs are placed in accordance with the signing guidelines contained herein and in the Grant Program Handbook, overuse of trail signs could be as harmful as improper use.

GENERAL GUIDELINES

- Except for Trail Information and Road Identification' signs, all snowmobile trail signs will be reflectorized.
- All snowmobile trail signs shall be placed upon posts.
- All signs, **except the sharp curve chevron**, will be placed on the right side of the trail, except in instances where a sign is placed on both sides of the trail. The sharp curve chevron will **always be placed on the outside of the curve**. This means that on some curve approaches, the chevron will be on the left side of the trail.
- All snowmobile trail signs should be placed not more than 4 feet above expected snow depth. Changing snow depths may require adjustments to sign heights.
- Signs should be placed no more than 3 to 5 feet from the right side of the groomed trail surface.
- Wooden sign posts must be no larger than 4" by 4". If metal posts are used, they must be "yielding" type posts, as defined in the Michigan Manual of Uniform *Traffic* Control Devices.
- All signs placed on state funded snowmobile trails must be approved by the Department.
- Signs funded or provided by the DNR are to be used only on state funded trails. Under no circumstances will signs, provided by or funded by the Department, be used on non-funded trails.

- Signs not needed for the safe use of the trail during the non-snowmobiling season should be taken down at the end of each season, to reduce the incidence of vandalism. In areas where incidents of vandalism are low, these signs may be left up, at the discretion of the land owner/manager. At the discretion of the land owner/manager confidence markers should be left up.
- Posts used for signing snowmobile trails must be appropriate for sign holding purposes, and if the sign is removed, the post should also be removed.
- Avoid overuse of all signs. Only trail signs meeting state standards for size, color, shape, and reflectorization are allowed on funded snowmobile trails. This will help to eliminate or reduce problems with clutter and confusion.
- If two signs are placed on one post, the sign with the message of highest importance must be placed on top. For example, a Stop Sign must always be placed above any other sign; a caution sign must be placed above a Guide Sign.

AUTHORIZED TRAIL SIGNS



Confidence Marker

This is a 9" by 7" reflectorized orange diamond. This sign is used to reassure the rider that he/she is on a designated trail. Confidence markers shall normally be placed at intervals of 1/4 to 1/2 mile, where trail entrances and exits are limited. If necessary, and in open and agricultural areas, they should be placed at closer intervals. For reassurance purposes, confidence markers should be posted immediately beyond points of intersection with other trails and immediately beyond intersections where the user is expected to stop. Placement of this marker should be no farther than 50 feet from the crossing or the point where the snowmobiler stopped. Actual marker spacing should be dictated by sight distance on the trail. When leaving an open area and entering a wooded area, a confidence marker should be placed on both sides of the trail. When crossing open areas or farm fields, a confidence maker should be placed on both sides of the trail to form a clear trail corridor. This will aid in keeping snowmobilers on the approved trail.



Trail Number Signs

These signs are 9" by 7" reflectorized orange diamonds with specific trail numbers. They are used to inform the snowmobiler of the specific trail they are on. The trail number signs must be coordinated with maps showing the same trail numbers. These signs should be spaced at two (2) mile intervals along the trails. More signs may be used at trail junctions and intersections, and should be posted within a clear site distance from the trail junction or intersection.

Community Route Markers

These signs are 5" by 7" reflectorized green diamonds. They are only to be used within the limits of cities, towns, and villages, to designate approved routes through these communities. They are not to be used as markers for routes into the communities. These signs may be ordered by any sponsor organization, which operates a trail system into and through a community. Signs will be purchased by the department and provided to the sponsor.



Hazard Marker

These are 6" by 24" reflectorized yellow signs with black diagonal markings. They shall be used at each of the four corners on bridges, culverts, or other hazards adjacent to, and on both sides of the trail bed. In the case of a potential hazard on one side of the trail, a hazard marker should be placed at each end of the potential hazard, on one side of the trail. The black diagonals must slope inward towards the trail, and away from the hazard.



Sharp Curve Chevron

Sharp curve Chevrons are 12" x 18" reflectorized yellow rectangles with a large, black chevron. The sharp curve chevron will be used where the designated trail makes a turn or curve greater than 45 degrees. The chevron will be used on sharp curves when the "Sharp Curve" caution sign is used. When used with the Sharp Curve sign a minimum of two chevrons must be used in every curve. The first chevron should be placed at the point where the trail turn begins, and the second at the midpoint of the curve. At no time will the sharp curve sign and the sharp curve chevron be placed on the same post.



Stop Sign

Stop signs must meet [M.D.O.T. standards](#) for shape and color. The standard off-road trail stop sign is 18" x 18". When the trail is to be used by vehicular traffic during the non-snow season, a larger stop sign may be used. However, the agency with jurisdiction over the road is responsible for placing all signs designed for use outside the snowmobile season. Stop signs will be placed at all intersections with plowed roads and all other trail locations that warrant stopping. Stop signs should be placed as close as possible to the intended stopping point, but at no time will they be placed more than 25 feet from this intended stopping point. All signs placed within 30 feet of the edge of a maintained

vehicular roadway shall employ a wooden post, no larger than 4 inches by 4 inches or a "yielding type" metal post. Stop signs shall be paced only on the right side of the trail, unless one is placed on both sides of the trail.



Stop Ahead

An 18" x 18" stop ahead sign will be placed at least 350 feet before all stop signs. If, due to multiple stop signs at city street intersections, the above spacing distance cannot be met, the stop ahead will be placed as far from the stop sign as is possible. The sign will be a reflectorized yellow diamond with a red octagon symbol and black arrow. The stop ahead sign must be used in all instances where a stop sign is used, with the two exceptions noted below. The first is where multiple stop signs are placed closer than 400 feet together. In this case, a stop ahead sign only needs to be placed 350 feet before the first stop sign. Second, a stop ahead sign is not needed when a "Rail Road Crossing" sign is placed 350 feet before a crossing.



Yield

The Yield sign should be used where a snowmobile should be cautioned to slow down and be prepared to stop, but doesn't necessarily have to stop in all cases. Specific instances for use would be at private drives, non-groomed trails, and unplowed roads. However, in all cases of use of the Yield sign, the appropriate caution sign must be placed 350 feet before the potential hazard and Yield sign.

Caution Signs

Caution signs are 18" by 18" reflectorized yellow diamonds with black lettering or symbols. Caution signs will be used in all situations where there is a need to warn the snowmobiler of a potential trail hazard and to slow the trail user. Caution signs must be placed at least 350 feet before the potential hazard identified on the caution sign. The actual distance will depend upon whether a snowmobiler is expected to slow down or come to a complete stop. When a caution sign is used, the specific hazard must be identified on the sign. At no time shall any caution sign which does not specify a specific hazard or which does not meet the size or color specifications listed in this handbook be used on any designated, funded trail. A caution sign will be used to designate all curves or turns greater than 45 degrees, unless the caution sign "Winding Trail" is used. See below for specific caution signs.



Bridge Ahead

The Bridge Ahead sign will be placed 350 feet before every bridge on the trail system.



Narrow Bridge

This sign should be placed a minimum of 350 feet before every bridge with a clear width of less than 12 feet.



Winding Trail

A winding trail sign should be used in all instances where there are multiple curves with less than 350 feet of straight, flat trail between the curves. This sign should be placed at the beginning of any stretch of trail as described above. If the extremely curvy portion of trail extends more than one-half (1/2) mile, additional Winding Trail signs should be placed at intervals along the trail, for added emphasis. When using the Winding Trail sign, Sharp Curve Chevrons (see above) need not be placed at every curve. However, within the curvy segment, the chevron should be placed on all especially sharp curves (curves greater than 90 degrees). This is especially important if there are short, straight stretches of the trail that would allow a snowmobile to accelerate to a higher rate of speed. When used in conjunction with the Winding Trail sign, one chevron may be sufficient in a curve, depending upon the length of the curve. If only one is used, it must be placed at the beginning point of the curve.



Steep Hill

This sign should be used on any hill that makes a drop in elevation of more than ten (10) feet. The Steep Hill sign should only be used on the "down-slope" side of a hill, as this is clearly not visible to the trail user. The up-slope side of the hill generally does not have this

"visibility' problem. However, if the hill makes an immediate drop of more than ten (10) feet, a steep hill sign should also be used on the "up-slope side of the hill.



Congested Area

This sign should be used in Cities, Villages, Towns or other locations where the occurrence of vehicular traffic, and/or pedestrians warrant slowing snowmobiles down.



Railroad Crossing

This sign is used to warn trail users of railroad crossings and must be used at all such crossings. The sign must be posted at least 350 feet before any railroad crossing because all snowmobiles must be prepared to stop at any railroad crossing. If the crossing itself has the standard "highway" warning lights and barricades, no other warning signs are necessary. If the crossing does not have any other warning devices, a Stop Sign should be placed at the crossing.



Narrow Trail

This sign should be used whenever there is a significant reduction in the width of a trail or trail segment. An example of this would be going from a 16 foot wide railroad grade to a 10 foot wide trail off the grade.



Private Drive

This sign should be used to warn trail users where driveways cross the trail. A yield Sign should be used in conjunction with this sign, and would be placed at the driveway location.



Trail Crossing

This sign should be used to warn trail users where other trails cross the trail, but where the snowmobiler is not expected to stop at the trail crossing. A yield Sign should be used in conjunction with this sign, at the crossing location. This sign should not be used if the cross trail is a designated, groomed snowmobile trail. In this case, snowmobile traffic, on both trails would be expected to stop, therefore, a stop and stop ahead sign would be used.



Truck Traffic

This sign should be used where large commercial trucks could be expected to be crossing the trail or where they might be using the trail.



Sharp Curve (Left and Right)

The Sharp Curve Sign will be used to designate all curves of the trail greater than 45 degrees. The sharp curve sign must be placed a minimum of 350 feet before the curve. In addition, wherever the sharp curve sign is placed before the curve, the sharp curve chevron must also be used (see Sharp Curve Chevron above for placement instructions). If there are multiple curves with less than 350 feet between the curves, the winding trail sign should be used in place of the sharp curve signs (see Winding Trail, above).



Wet Area

This sign may be used in areas where low swampy areas adjacent to the trail do not freeze up. It should also be used in areas where early and late winter weather would cause wet holes or low spots on or adjacent to the trail.



Intersection

This sign should be at any trail or road intersection where the snowmobiler would not normally be expected to stop. A Yield Sign should also be used in conjunction with this sign, and placed at the actual intersection location



Single Side Intersection (right or left)

This intersection sign should be used whenever there is a trail junction from either the right or the left. It should not be used when the designated trail makes a T intersection with another trail or road, since the stop sign would be used in this instance.



Deer Area

The deer area sign will be used in areas where high deer populations result in deer using or crossing the trail on a regular basis. This is especially true where the trail goes through low, swampy areas.



Logging Ahead

This sign should be used whenever a logging operation is being conducted along, adjacent to, or which crosses a trail.



Drift Area

This sign should be used to warn the snowmobilers of potential snow drifting hazards on a trail. This is especially true of open areas prone to deep snow and strong winds.



Two Way Trail

This sign is to remind snowmobilers that the trail system is a two way system. It should be used at the beginning of all major trail segments and/or where the trail leaves a trailhead or staging area. For added emphasis, it may be placed at major trail intersections on the trail. Care should be taken to insure this sign is not overused on a trail.